ABSTRACT OF THE DISCLOSURE

A method for transmitting security data in an Ethernet PON (Passive Optical Network) system is provided. The method includes the steps of: a) creating a frame

5   comprised of a data field for encrypting the security data, a key information field for storing key information used for decrypting the encrypted data of the data field, and a security frame, wherein the security frame includes an ONU ID (Identifier) field for indicating ONU ID information identified by an ONU having the destination user, and a user ID field for indicating a security ID identified by the destination user; and b) transmitting the created

10   frame.